

Notice of Allowability

Application No.

09/537,669

Applicant(s)

YAMAMOTO, TAKESHI

Examiner

Yogesh K. Aggarwal

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 06/22/2005.
2. ☒ The allowed claim(s) is/are 1-8,10-18(The claims have been renumbered as 1-17 respectively).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Allowable Subject Matter

1. Claims 1-8 and 10-17 are allowed.
2. The following is an examiner's statement of reasons for allowance: The prior art of record, neither anticipates nor renders obvious the following limitations as claimed:

[Claim 1]: An image processing apparatus for processing image data supplied from an image sensor, comprising: **a delay circuit having a first input for receiving image data sequentially supplied from the image sensor, a first function circuit for delaying the received image data by a time required for defect correction process, and a first output for supplying each of the delayed image data; a memory having a first field for storing image data of one frame and a second field for storing position data of a defective pixel of the image sensor, a counter for counting the number of pixels of image data sequentially transferred from the image sensor, and a defect correction circuit having a second input for receiving the image data supplied from the image sensor, a second function circuit for forming corrected image data for each pixel from the image sensor, based on image data of pixels adjacent to a pixel of interest, and a second output for supplying each of the corrected image data; and control means for writing the image data supplied from the second output of said defect correction circuit in the first field of said memory at a storage location corresponding to the defect pixel, if a count of said counter becomes coincident with a number corresponding to the position data of the defective pixel in the second field of said memory, and writing the image data supplied from the first output of the delay circuit in the first field, if the count is not coincident with the number corresponding to the position data of the defective pixel.**

[Claim 10]: Claim 10 is a method claim corresponding to apparatus claim 1.

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[Claim 17]: Claim 17 is similar to claim 1 except the delay circuit and the defect correction circuit process and output the image data in parallel.

[Claim 18]: Claim 18 is a method claim corresponding to apparatus claim 17.

Prior art

The following prior art shows the current state of the art related to this patent application:

i. Younse et al. (US Patent # 4,805,023) discloses a comparator 13 for comparing the address in the pixel address counter with the stored addresses in the PROM of defective pixels. Younse also discloses a sample and hold latch (35) for correcting the pixels by substituting a previous pixel before the defective pixel but fails to disclose a separate defect correction circuit.

ii. Takemura (US Patent # 4,237,488) fails to teach a separate defect correction circuit.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K. Aggarwal whose telephone number is (571) 272-7360. The examiner can normally be reached on M-F 9:00AM-5:30PM.

3. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YKA

November 21, 2005

A handwritten signature in black ink, appearing to read 'David Ometz', with a long horizontal stroke extending to the right.

DAVID OMETZ
SUPERVISORY PATENT EXAMINER